

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Andrea Caprara et al.

Application No.: NEW

Filed: HERewith

For: HIGH-POWER EXTERNAL-CAVITY
OPTICALLY-PUMPED
SEMICONDUCTOR LASERS

Group Art Unit: Unknown

Examiner: Unknown

**INFORMATION DISCLOSURE
STATEMENT**121 Spear Street, Suite 290
San Francisco, CA 94105
(415) 512-1312

M/S PATENT APPLICATION

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicant(s) submit(s) herewith patents, publications or other information [attached hereto and listed on the attached Form PTO-1449 (modified)] of which they are aware, which they believe(s) may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement:

- (a) ☒ accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).
- (b) ☐ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.
- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits, or before a first office action after filing a Request for Continued Examination under §1.114.
- (d) ☐ is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a

notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

- (e) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and the Issue Fee has not been paid, and is accompanied by the fee (\$130) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) is checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

- (f) ☐ Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- (g) ☐ No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publication(s) is set forth on the attached Form PTO-1449 (Modified).

A copy of the items on PTO-1449 (Modified) is supplied herewith, except as noted below.

Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached form PTO-1449 (Modified) are not supplied because they are (a) either U.S. Patents and this an application filed after June 30, 2003, or (b) were previously cited by or submitted to the Office in a prior application nos. 10/180,825, filed June 26, 2002, 09/938,226, filed August 23, 2001, and 09/263,325, filed March 5, 1999, and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the items listed on form PTO-1449 (Modified) is:

- (k) ☒ not given

- (l) ☐ given for each listed item
- (m) ☐ given for only non-English language listed item(s) [Required]
- (n) ☐ is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

The Examiner is reminded that a "concise explanation of the relevance" of the submitted items "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention," MPEP § 609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,

STALLMAN & POLLOCK LLP

Dated: October 27, 2003

By: 

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INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>	Docket Number (Optional) COHL-3643	Application Number NEW
	Applicant(s) Andrea Caprara et al.	
	Filing Date HEREWITH	Group Art Unit Unknown

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	*AA	5,050,179	09/17/1991	Mooradian	372	44	04/20/1989
	*AB	5,131,002	07/14/1992	Mooradian	372	50	02/12/1991
	*AC	5,289,485	02/22/1994	Mooradian	372	45	12/22/1992
	*AD	5,436,920	07/25/1995	Minemoto et al.	372	21	05/18/1994
	*AE	5,461,637	10/24/1995	Mooradian et al.	372	92	03/16/1994
	*AF	5,627,853	05/06/1997	Mooradian et al.	372	92	03/16/1995
	*AG	6,285,702	09/04/2001	Caprara, et al.	372	92	03/05/1999

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	*AH	DE 25 22 338 A1	12/04/1975	Germany	H01S	3/10		X
	*AI	WO 93/14542 A1	07/22/1993	PCT	H01S	3/109		
	*AJ	DE 42 28 862 A1	03/03/1994	Germany	H01S	3/109		X
	*AK	WO 94/15386 A1	07/07/1994	PCT	H01S	3/094		
	*AL	DE 43 15 580 A1	11/17/1994	Germany	H01S	3/043		X
	*AM	WO 95/25366 A2	09/21/1995	PCT	H01S	3/085		
	*AN	WO 98/43329	10/01/1998	PCT	H01S	3/085		

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

	*AO	J.V. Sandusky et al., "A CW External-Cavity Surface-Emitting Laser," <i>IEEE Photonics Technology Letters</i> , Vol. 8, No. 3, March 1996, pp. 313-315.
	*AP	M. Kuznetsov et al., "High-Power (>0.5-W CW) Diode-Pumped Vertical-External-Cavity Surface-Emitting Semiconductor Lasers with Circular TEM ₀₀ Beams," <i>IEEE Photonics Technology Letters</i> , Vol. 9, No. 8, August 1997, pp. 1063-1065.
	*AQ	A. Rosiewicz et al., "Optical pumping improves VCSEL performance," <i>Laser Focus World</i> , June 1997, pp. 133-136.
	*AR	W.J. Alford et al., "Intracavity frequency doubling of an optically-pumped, external-cavity surface-emitting semiconductor laser," <i>Advanced Solid State Laser Conference, Sandia National Laboratories</i> , SAND-98-2108C, CONF-990105, December 31, 1998, 5 pages in length.
	*AS	Wang-Hua Xiang et al., "Femtosecond external-cavity surface-emitting InGaAs/InP multiple-quantum-well laser," <i>Optics Letters</i> , Vol. 16, No. 18, September 15, 1991, pp. 1394-1396.
	*AT	PCT International Search Report, mailed February 25, 2000, for International Application No. PCT/US99/24303, filed October 18, 1999, 7 pages in length.

Examiner	Date Considered
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	